

BORN FLIPPED – BLENDED LEARNING CLASSROOMS FOR AN ENTIRE BUSINESS PROGRAM

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Abstract

This paper presents a descriptive multi-case study of an undergraduate program that was ‘born flipped’: where every course in the program is taught in flipped classroom mode. Four separate accounts from a range of disciplines are presented, including marketing, management, economics and accounting. The Four Pillars of **F-L-I-P** is used as a framework for discussion. This study concludes with thoughts on the potential impact of flipped classrooms within higher education, and recommendations for this model of education.

Introduction

As educators we are always looking for ways to engage our students, both inside and outside of the classroom. Though we despair about attendance and complain about millennials and their obsession with their phones and electronic devices, finding ways to engage students is not a new concept. Research in the 1970s notes that a decade earlier the critical focus was “more pupil talk, less teacher lecturing, and more higher-order questions” (Rosenshine & Berliner, 1978, p. 4) and considered the balance between content covered and student attention and engagement. This research suggested that engaging students in relevant content and keeping them focused on curriculum material is essential (Rosenshine & Berliner, 1978).

More recently we have seen technology emerge in development of the online classrooms to engage the students in relevant content. Recorded full lectures delivered online, the rise of MOOCS and online assessments, and YouTube channels such as the Khan Academy have been both embraced and criticised by academics and practitioners alike. While some courses seem to lend themselves more than others to automated assessments (for example: those in the STEM disciplines of Science, Technology, Engineering and Maths) the move away from using technology as merely a repository cannot be ignored. With the higher education sector moving more towards online delivery in order to be more responsive to student demands, one might question whether the move away from face-to-face interaction is increasing student engagement with the learning process. One movement that is said to encourage flexible, active learning, and increase student engagement is the flipped classroom model.

Blended Learning: The Flipped Classroom

While there is some debate as to what exactly constitutes a flipped classroom, essentially it “delivers the content to students outside of the classroom using taped lectures, videos, or other pieces of technology” (Vaughan, 2014, p. 27). A scoping review of flipped classrooms suggests that the “core features of the flipped learning approach include: content in advance (generally the pre-recorded lecture), educator

awareness of students understanding, and higher-order learning during class time” (O’Flaherty & Phillips, 2015, p. 95). Therefore, a flipped classroom takes what was traditionally content covered in the lecture and translates that into online materials for students to undertake in their own time, including pre-recorded lectures, podcasts/vodcasts, screencasts, and/or interactive videos.

A flipped classroom does not just move the lecture and content online. While the content is delivered online, the key learning comes from what happens in the classrooms when the content is already pre-learned. The tutorials (or workshops) aim to focus on the application of the content that the students pre-learned, and filling in any knowledge gaps or misconceptions in the content. There are a myriad of approaches to learning in this context (for examples see O’Flaherty & Phillips, 2015) with a focus on engaging the students in the materials. In this manner, flipped mode teaching is different to online learning as the student interaction and application happens face-to-face back in the classroom, rather than on an online discussion board or similar.

However, the purpose of a flipped classroom is not only to change the mode around: the key purpose is to create flipped learning. This is a “pedagogical approach in which direct instruction moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter” (FLN & Sophia, 2014). When comparing a traditional lecture to a flipped classroom, research has suggested that students have higher satisfaction with their learning in a flipped classroom environment (Butt, 2014; Hung, 2015).

With the growing number of absences in the lecture theatre, this approach would seem to make sense on a number of levels. From the student perspective, it allows them to virtually attend the lecture at a time that is suitable to them and their learning styles. It also gives them ownership of their own learning, at least in part, as they control how and when they access the content. From a lecturer perspective, it allows them to focus on the deliverable materials in the online lecture. From a university perspective, it allows a more efficient allocation of resources such as classrooms that spend more time than not half (or more) empty. Yet flipped teaching is not without its criticisms, such as lack of student interest with on-line lecturers versus live lectures (Perry, 2012), lack of student preparation, and lack of explanation of this teaching mode, resulting in student confusion. But what if students were never exposed to the traditional lecture/tutorial format: would they naturally evolve to be flipped learners? Another issue with flipped classrooms includes pushback from academics who are resistant to change (NMC, 2015), or who want to flip their classroom but work within a corporate culture resistant to change (White et al., 2015). How does the lecturer transition from the ‘sage on the stage’ to that of a mentor or coach?

The purpose of this study is to present an analysis from four participant-observers who deliver introductory units in Marketing, Management, Accounting, and Economics within a business program in Australia. This study investigates the utility of not just increasing use of blended learning, but using redesigned learning spaces to create an entirely blended, or flipped, business program. This study considers the importance of the development of flipped classrooms to the evolution of teaching, learning, and creative inquiry within higher education. The Four Pillars of **F-L-I-P** is used as a

framework for analysis and discussion. In the analysis, the **Flexible Environment** is discussed broadly across the program as a whole. Following that, each of the four case studies analyses their specific **Learning Culture**, **Intentional Content** and **Professional Educator** aspects. The cases chosen are all core units and have no pre-requisite units of study before they are undertaken.

Results: The Four Pillars of F-L-I-P

The Flexible Environment deals with the physical space that the students learn in to support their independent work and/or group learning activities (FLN, 2014). The facilities used for the scope of this analysis were purpose built for this program (MU, 2015) and the design is noted as challenging “the preconceptions of traditional tertiary learning spaces through innovative space planning and visionary design solutions” (IDEA, 2016). The workshop spaces are designed to be flexible, this includes tables and chairs with wheels that allow students to connect tables together for group work, and separate for individual work. Movable whiteboards also allow students to create their own learning spaces in this flexible environment (for images see: Shaw, 2016). The open and flat floor space allows the lecturer to continually move about the workspace, monitoring students and giving feedback as necessary. However, it is not enough just to create a flexible environment. In the flipped classroom, workshop time should be dedicated to exploring the pre-learned topics in more depth.

The next sections will explore the three remaining pillars of F-L-I-P. Each of the three pillars will include four first-person descriptions and reflections by the authors. The subheadings that follow attribute the personal descriptions and reflections of the specific author.

Learning Culture

Case one: Marketing (account by Tiffany Winchester). Shifting the learning culture to a flipped approach meant for me less talking and more supporting and guiding in order to flip the learning. In this, my mantra has been to “let them teach each other.” Scaffolding the learning activities is key in this environment. The students begin each workshop with a group Immediate Feedback Activity (IFA) consisting of ten multiple choice questions based on the pre-workshop material. In this format they engage in activities where they are able to learn from each other, allowing me to see any gaps in their learning before moving forwards. Next the students extend their learning in a range of application activities that are then presented back to the class for feedback and debate. Once any gaps or misconceptions in the concepts have been clarified, the students are presented with a case study to work through. This may include a guest speaker from industry to allow the students to network as well as learn about a real world example.

While this approach seemed to work well, there were still issues of students not fully engaging in the materials or the discussions. Another common issue was non-attendance in the workshops. While the IFAs should encourage students to undertake the pre-class work, and the in-workshop assessment should motivate attendance, this does not guarantee either will happen. When the learning is shifted from the teacher to the student, attendance and participation are of paramount importance, more so, I would argue, than a traditional lecture/tutorial.

Case two: Management (account by Bruce Johnstone). I designed workshops with the intention of providing enquiry-based and team based learning. Each workshop had its own learning objectives and an illustrative case study with a series of questions for group discussion. While I consciously avoided turning the workshops into lectures, I realised it was valuable to seize opportunities during group discussions to deliver learning soundbites of theory and practical knowledge.

From past experience, I thought it important to divide workshop groups into teams that would blend international and domestic students, and evenly distribute males and females. To achieve this I created seating plans, and then asked the members of each newly formed group to come up with their own team name. During workshops, students worked in their teams, applying theory to answer questions based on a case study. I would move between teams seeking to guide and stimulate discussion. The teams would then each present their findings to the group. This gave me the opportunity to comment briefly on each presentation, delivering a learning soundbite when appropriate.

Case three: Accounting (account by David Teh). The design of the workshops provided the students with an opportunity in enhancing their learning experience through: (1) peer-to-peer learning, and (2) problem based learning (Savery & Duffy, 1995). Students engaged in various activities where they were able to learn from one another, within and amongst the team. Sometimes I sat down to listen to students' discussion without any direct participation from me, only intervening when students asked for assistance. I tried to be careful not to give the students any direct answers but prompt the students to reflect on what they had learnt and think about how they can apply those key concepts in answering the questions. I believe this emphasised critical thinking and confidence: developing students' ability to think between the theory and real-life situation and apply the theory to answer or solve real-life business problems.

Industry business practitioners were also invited to share their experiences and knowledge in their chosen field with the students. This was to provide insights to the students that allow them to think about how they can apply the theoretical work in the 'real' business world. I also used a reflective journal as part of an informal assessment to enable students to think and reflect on their learning and plan for future development.

Case four: Economics (account by David Treisman). Problem solving is the mainstay of applied economics and the divide between skills and application is particularly acute in terms of rhetoric. To ensure a successful combination of the flipped mechanism with a constructivist workshop, a technique was needed to stimulate the desire by students to engage in such a developmental process. The simplest solution was to get the students to invest in their learning in a manner that was personally meaningful. Selecting a series of traditional and non-traditional real world topics for discussion achieved this during the class.

For example, when monopolistic competition was presented, students analysed and debated the role of product differentiation in their favourite brand of mobile phone. Students were encouraged to question their own consumption. On balance, I would argue that using topics with personal meaning is essential to any flipped classroom. Once the students had invested in their learning, the development of their problem solving skills became self-perpetuating. During the last two weeks of the teaching block, approximately 10% of the students enthusiastically reported their surprise and

delight in reading the financial press and being able to question and apply sound economic analysis to the issues at hand. This was personally one of the more rewarding moments in the flipped classroom and was the point at which I realised of how successful the approach was in shaping the learning culture of the students.

Intentional Content

Case one: Marketing (account by Tiffany Winchester). Moving from lectures, or seminars, to designing video content for students was more difficult than I originally assumed. One challenge was that the timeframe for developing the content more than a traditional lecture (in some cases one-two weeks of development for one week's lesson). Another challenge was in trying to find the balance between what I needed to cover with pre-workshop content versus what I should cover directly in the workshop. While it is natural in a traditional lecture or seminar to cover the theory and then use multiple examples to make the content relevant to a wide range of students, this is actually less effective in flipped mode. The more examples discussed, the longer the video, and the less likely the student will continue watching. The rule of thumb with video recordings is around six minutes (Hazlett, 2013; Morrison, 2014), which required me to break the material down into smaller pieces.

To maximise video engagement time, I focused on what content must be covered in lecture-style videos (for example styles see Morrison, 2014) then used quiz questions after each video to check understanding. Workshop time was then used to present one or two examples before allowing them to choose their own examples. This allowed the students to be more responsible for their own learning as well as to explore the materials on their own using their own contexts. As noted previously in the Economics reflection, this allowed students to explore the topic in a way that might be more personally meaningful to them, encouraging self-reflection and deeper learning.

Case two: Management (account by Bruce Johnstone). My initial approach to creating online material was to simply create online condensed versions of lectures using Adobe Presenter. The Open University Australia (OUA) consultants and eLearning team members who reviewed my online lessons advised me to make them simpler and shorter. But it seemed to me that that I was presenting complex ideas, and these lessons needed to be sufficiently challenging for people studying at university level. I worried that replacing lectures with simpler and shorter online lessons represented a dumbing down of university teaching.

How we construct learning in a digital world is not that different to how we consume online entertainment. We follow our interests and we click to view. Free to air media tends to be presented to us in 30 to 60 minute programs, broken down into small attention-sized bites interspersed by commercials. Online learning resources also have to be broken down to be more engaging and interactive. Students needed to be able to consume them at their own pace, and at a time and place that suited them via laptop, tablet to smartphone. To achieve this I decided to break down the material for a weekly topic into a series of sub-topics, each with its own presentation. I also made an effort to effectively combine characters, graphics and text in each presentation with animation, narrated audio and full text. Students value their time, and using bite-sized materials (which students will often watch at 1.5 normal speed) may help to create that value without losing academic rigour.

Case three: Accounting (account by David Teh). Pre-class workshop video recordings were curated and created to cover the weekly fundamental key concepts using three to five videos with a timeframe of five to seven minutes each. I also thought that working with qualified learning designers could be useful, supported by appropriate teaching pedagogy and use of technology.

Workshop A was designed to continue to build on those key concepts in pre-class workshop videos with an emphasis on the balancing of theory and application, supported by examples. Workshop B was considered by the students to be the most interesting session as students worked as an accountant or business analyst to solve real business problems, using case studies designed with relevance to the particular topic for that week.

Case four: Economics (account by David Treisman). Flipping the economics unit utilised a thematic approach to seamlessly scaffold the learning experience. Each theme would begin with an introductory video in which a topic or series of topics were introduced in a non-technical or anecdotal manner and culminated in a series of questions that the students needed to explore. These same questions were then used as the means with which to scaffold the learning during class time. This progressively intensified the student-centred learning across the full learning spectrum from the abstract theoretical to real world problem solving. This required following a sequence of largely team/group based peer assisted learning exercises as follows: pre-class material, group work theory exercises, group work application of theory, group work real world problem solving, debate and discussion.

Scaffolding does work for a flipped classroom. However, I found the educator faces a significant challenge: the associated self-directed group work often resulted in a multi-track classroom in which some students were acquiring knowledge/completing tasks at different speeds. This, in turn, added further to my responsibilities and required delicate application of diplomatic skills in order to maintain harmony among the student body, while simultaneously identifying methods to accelerate the learning experience. This personally became a tedious process a few weeks into the trimester and often made me feel more like an apologetic fire fighter than a lecturer.

Professional Educator

Case one: Marketing (account by Tiffany Winchester). Moving from the ‘sage on the stage’ to a motivating coach was, and still is, a challenge in flipped classrooms. One concept that I keep in the back of my mind is that for flipped learning to take place, I need to speak less than my students do. For the first few weeks of each semester, setting up this culture in the workshop is a key focus. This meant moving around between the groups, encouraging all students to participate in discussions, including those whose natural inclination is listening, rather than active participation. Often I would sit down at the tables with my students and listen in on the conversation without interrupting, and intervening when they needed the assistance (similar to the approach taken in Accounting). The IFAs as mentioned earlier gave me a good indication each week as to which groups were struggling with the concepts, so I could spend more time with those groups. In some workshops where the students were not as prepared as they needed to be it was a struggle not to ‘lecture’ and instead just to guide students towards their own answers.

Case two: Management (account by Bruce Johnstone). An implication for professional practice is that the ability to produce good quality online material is likely to be a routine requirement for university lecturers. Like me, they will have to make a transition from a traditional lecture mind-set in finding ways to replace lectures with a more learner-centred approach. In practical terms this may mean educators may be called on to improve their skills in using media technology and presenting for video and audio. Honing design skills and the ability to break down the key critical content previously contained in lectures into learning bites, and create learning resources that flip the classroom and put the learner at the centre.

Case three: Accounting (account by David Teh). From my experience, to make the flipped classroom more effective and enhance flipping learning, the mindset and practice of professional educators has to change. I view my role more as a facilitator rather than a lecturer in the workshop settings. Professional educators have become more than just lecturers and subject matter experts: they are facilitators who communicate and engage with students to support the students' learning and professional development.

Case four: Economics (account by David Treisman). I would argue that facilitating a flipped classroom is much more effort than traditional lecturing. Aside from the known increase in preparation work, the usually hidden effort stems from the flip-flop nature of running a flipped classroom. Regularly I would deal with a mundane query from a student only to instantaneously have to change track in order to address a spectacular query from the same/next student. Such sudden reversals simultaneously tested my temperament as an educator and my personal confidence in my knowledge of the theory and practice of my specialised field of study. This makes for a very dynamic lecturing experience and was, at first, quite a shock. In my view, the flipped classroom can be quite a challenge for the uninitiated, and may not be appropriate for all lecturers.

Discussion and Future Research

The purpose of this descriptive multi-case study was to present insights from four participant-observers within a business program in Australia. From the descriptions and reflections two themes are discussed: skill change required of the professional educator, and striking the balance between 'sage' and 'guide.'

Whereas traditional lecturers use their research and teaching experience to direct the learning, flipped classroom lecturers need to use their research, teaching and practical application experience to obliquely direct learning. This is reflected in the breaking down and recomposition of tasks in a fashion that can support flipped learning in the pre-class material and the role of authority figure performed by lecturers during class time. Therefore, this model of education may require professional educators with a different skill set than the traditional lecture/tutorial format. Replacing lecture preparation with developing online material was perhaps the most challenging. Educators, who might typically devote a day's work to preparing to deliver a traditional lecture, may find themselves allocating a full week to the production of a web package to replace that lecture. Skills needed include, but are not limited to, video presentation, recording narration, content development skills and more advanced skills in using Learning Management Systems such as Moodle or Blackboard. The need to develop new media presentation and technical skills, took the authors out of their comfort zone as university lecturers.

The flipped model extends the student-centred learning concept in which the educator moves from a director of learning to a facilitator of learning. This is characterised as moving from the sage on the stage to the guide on the side. In practice, strict adherence to the conceptualisation of the standard flipped model rarely occurred. The authors have all found themselves required to act as sages, at least to some extent. They were called on to answer questions within workshops to establish as well as extend the student learning. Therefore, while flipped classrooms have the potential to transform higher education, more often than not the role of the lecturer in the flipped classroom was that of sage on the side, rather than a guide on the side. The art of facilitating in a flipped classroom is finding the balance between being a sage without a stage while still being a guide at the core of student-centred learning experiences.

This study provided initial insights from the professional educator perspective from the early days of a flipped program. Future research should consider the impact from the student perspective: how did it affect student performance, satisfaction, and attitude towards the flipped approach. Further research considering teacher satisfaction, impact and adaptations to the workload, and the barriers/enablers that might be encountered would also be valuable to this emerging area of study within higher education.

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